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Purification of ammonia by distillation

Abstract

Crude ammonia is separated into a low boiler fraction, a high boiler fraction and an intermediate-boiling pure fraction by continuous fractional distillation in a distillation apparatus configured either as a dividing wall column or as a system of thermally coupled distillation columns. In the process of the present invention, the low boiler fraction is taken off at the top of the distillation apparatus. The intermediate-boiling pure fraction is obtained at a side offtake which is preferably provided with droplet precipitators. In addition, the gas loading of the distillation column is restricted so that the operating pressure is in the range from 2 to 30 bar and the F factor does not exceed $2.0 \text{ Pa}^{0.5}$.

(Fig. 1)